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Teachers' Feedback: Exploring Differences in Students' Perceptions

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Abstract

Perception plays a key-role in how feedback is processed. Individual and situational characteristics can potentially influence how students perceive teachers' feedback. Our main goal is to study if students' gender and/or the type of education program they attend may influence how they perceive teacher feedback in a class that they like. For this study we used 13 items from the *Feedback, Identification, School Trajectories Questionnaire* that measure students' perceptions about teachers' effective feedback (EF) and ineffective feedback (IF). Data from 178 students were randomly selected from a larger data base (89 attending the 9th grade of an academic education program and 89 attending courses in vocational education). No differences were found in the perceived feedback regarding a main effect of the type of education program attended, neither for the combined effect of type of education program attended and the student gender. However, results revealed a student gender main effect, with girls perceiving more effective feedback than boys. Future studies should continue exploring how learners' individual and situational characteristics may relate or affect their feedback perceptions, as well as how these perceptions relate to learning. This will allow us to compare results and fully grasp the practical significance of the magnitude of the effects found.

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1. Introduction

This paper is part of a larger ongoing research project, entitled *Feedback, Identity and Trajectories in Education: Dynamics and Consequences* (FITE) (Contract PTDC/CPE-PEC/121238/2010), which is being developed in the

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Education Institute of the University of Lisbon, seeking to understand the nature of teacher feedback, and the dynamics and consequences in the development of the identity of the students and their school trajectories. Teachers' formative discourse emphasizes the central role of students' learning (Hattie, 2003). When providing feedback to a student, a teacher is essentially giving information about the student's performance or understanding (Hattie & Timperley, 2007). Teachers should use feedback to try to reduce the gap between the student's understanding and actual performance and how the teacher wants him to perform or develop (Hattie, 2009). Research has shown feedback to be among the most powerful and effective influences on student achievement (Hattie, 2009), as well as an important component of the pedagogical process (Brookhart, 2008), since it links teachers' practice to students' learning needs (Bayley & Gamer, 2010). However, Kluger and DeNisi (1996) found that about a third of the reported effects of feedback on learning, were in fact negative. There is a vast amount of research that identifies the characteristics of effective feedback and feedback that is not effective or has a negative effect on learning (e.g. Kluger & DeNisi, 1996; Hattie, 2003; Sendziuk, 2010; Brookhart, 2012; Hattie, 2012; Wiggins, 2012; Thurlings, Vermeulen, Bastiaens & Stijnen, 2013). Many teachers claim to provide its students lots of feedback, however, the real question is whether the students receive, understand and act on it. As stated by Hattie (2003), "the key is feedback that is received and acted upon by students" (p. 174). Since perception plays a central role in the feedback process (Ilgen, Fisher, & Taylor, 1979), it is somewhat surprising to see that only a few recent empirical studies have focused on how learners perceive feedback and how these perceptions relate to learning (Stribos, Narciss & Dunnebler, 2010; Havnes, Smith, Dysthe & Ludvigsen, 2012; Rakoczy, Harks, Klieme, Blum, & Hochweber, 2013). Students are active agents in the feedback process. Different students can interpret teachers' feedback in different ways. In this sense, individual and situational characteristics can have a potential effect on how students perceive the teachers' feedback (Havnes, et al., 2012; Rakoczy, et al., 2013). In this paper, our main goal is to determine if the student gender and/or the type of education program they attend may influence how they perceive teacher feedback in a class that they liked. Specifically our questions are: a) Is there any difference in the amount of perceived feedback between boys and girls?; b) Is there any difference in the amount of perceived feedback between academic education students and students in vocational education programs?; c) Is there any combined effect of student gender and type of education program in the amount of the perceived feedback? These questions generate two analytical categories: student diversities (gender), and program diversities (academic versus vocational).

2. Method

2.1 Participants

The data used in this study was taken from a larger representative sample of the students in Portugal (only in the continent territory) attending the 6th, 7th and 9th grade in Basic Education and the 10th grade of Secondary Education, collected within the FITE project. For our sample, we've selected 178 students between the ages of 13 and 19 years ($M = 15.3$, $SD = 1.08$) where 34.5% were girls and 65.5% were boys. Students were from eighteen Portuguese schools. Eighty nine students attending the 9th grade in the third cycle of Basic education were randomly selected from the larger sample. Basic education is compulsory and free, intended for children aged between six and fifteen, and, although incorporating some elements of vocational training, the program is mostly of an academic nature. The other 89 students were also selected from the larger sample, and were attending courses in vocational programs, which are intended for students within the age of 15 or more, without any professional qualifications, and with a risk or an academic history of dropping out of compulsory school (Ministry of Education and Science, 2012). Regarding gender distribution according to the type of education program, there were 40 girls and 49 boys attending the academic program, and 21 girls and 67 boys attending vocational courses.

2.2 Instrument and Procedure

In order to evaluate our students' perceptions about teacher feedback, we used the Questionnaire Feedback, Identification, School Trajectories (QFIST; Carvalho, Conboy, Santos, Fonseca, Tavares, Martins, Salema, Fiuza, & Gama, 2014). QFIST measures student identification with the school, student behavioral engagement in the school and student perceptions about teacher feedback. For this study we used only the 13 QFIST items that measure student perceptions about the teacher feedback. The following nine items evaluate effective teacher feedback

perceived (EF): 1) The teacher explains what is expected to learn in the discipline; 2) The forms of assessment in the discipline are presented clearly; 3) The teacher makes specific comments to help us complete the task; 4) The teacher gives us opportunities to improve our work / grades; 5) The assessment grades are communicated and explained to each student; 6) Different forms of assessment are used (not only written tests); 7) After we completed a task, the teacher clearly describes what is not correct and makes suggestions to improve; 8) The teacher asks questions that help us to reflect on the quality of our work; 9) The teachers' tone and facial expressions show us that he believes in our improvement. The other following four items evaluate ineffective teacher feedback perceived (IF): 1) When the teacher is communicating our grades, he makes nasty remarks; 2) The teacher makes more comments about our way of being than about our work; 3) The teachers' comments show lack of respect for the students; 4) The teacher tells us to do better, but does not explain how. All items were answered in a four point Likert scale (0 = It never happens in this class; 1 = It occasionally happens in this class; 2 = It happens frequently in this class; 3 = It always happens in this class).

Findings about student perceptions often reflect their relations with teachers in general (Wentzel, 2012). Since we were seeking to obtain students' perceptions about a specific dyadic relation between students and one teacher, we asked participants to answer all the questions thinking about how they corresponded to the reality in a class that they liked. Cronbach alpha values obtained for the original scales were of .81 (EF) and .77 (IF) (Carvalho, et al., 2014). For our sample values of .80 for the EF scale and .84 for the IF scale were observed. The completion of the questionnaire was supervised by the students' teachers during the classes. The students collaborated voluntarily, taking the necessary time to properly answer the full questionnaire. Statistical analyses employed SPSS 22.0 for Windows.

3. Results

Preliminary analysis revealed statistically significant mean age differences $F(1, 172) = 70.26, p < .05$, between vocational education students ($M=15.80, SD=0.11$) and academic education students ($M=14.61, SD=0.09$). These age differences were expected, since participants in the vocational education program were attending courses aimed at students within the age of 15 or more, whereas basic education is intended for students until 15 years old.

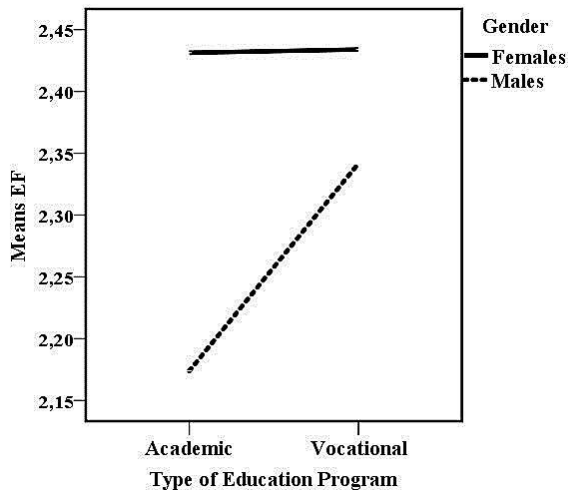


Figure 1. Mean differences for perceived EF

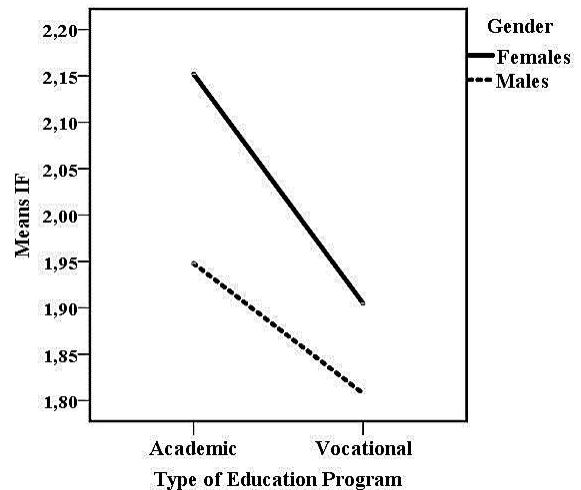


Figure 2. Mean differences for perceived IF

Regarding the EF perceived, two-way ANOVA results revealed a main effect considering the student gender, $F(1, 170) = 5.80, p < .05$, in the amount of effective teacher feedback perceived between girls and boys. Further analysis showed that statistically significant differences were only found between girls and boys attending the academic program, $F(1, 170) = 7.47, p < .05$, with an estimated effect size of $d = 0.39$. Differences in the amount of effective teacher feedback perceived between girls and boys attending vocational education courses were statistically non-significant, $F(1, 170) = 0.70, p = .41$. There were also no statistically significant differences in the amount of effective teacher feedback perceived regarding a main effect of the type of education program attended, $F(1, 170) = 1.38, p = .24$, neither for the combined effect of type of education program attended and student gender, $F(1, 170) = 1.30, p = .26$. As for the IF perceived, two-way ANOVA results revealed there were no main effects of student gender, $F(1, 170) = 1.30, p = .25$, nor the type of education program attended, $F(1, 170) = 2.16, p = .14$. This means that, neither between girls and boys, nor between students in the academic program and students attending vocational education courses, were there statistically significant differences in the amount of ineffective teacher feedback perceived. When considering the combined effect of type of education program attended and student gender, differences in the amount of ineffective teacher feedback perceived were also statistically non-significant $F(1, 170) = 0.17, p = .69$.

4. Discussion and conclusions

When comparing students in the academic program with students in vocational education courses, there were no statistically significant differences in perceived feedback. This result seems similar to Havnes, et al. (2012), where no significant differences in perceived feedback were found between students in the traditional academic program and students attending vocational courses. When considering only student gender, there were differences on the effective feedback perceived. Havnes, et al. (2012) also found gender differences over perceptions of feedback. Girls were more critical than boys concerning the quality of the feedback received. In our study, girls reported greater frequency of effective feedback when compared to boys. One possible explanation for this result may be linked to other research on gender differences, in which girls are shown to be more able to manage and regulate their attention (Else-Quest, Hyde, Goldsmith & Hulle, 2006). Thus, it is possible that girls are more attentive than boys, which leads them to report receiving more feedback from their teachers, when compared to boys. On the other hand, after reviewing 124 meta-analyses results, Hyde (2005), noted that girls outperformed boys in agreeableness, which also may help explain why girls reported receiving more effective feedback from their teachers. In this sense, it is possible that girls reported more frequency in the teacher effective feedback because, compared to boys, maybe they were making a greater effort to be pleasant. It is worth noting that, in this study, gender differences were only found among students attending the academic program. However, we wonder whether the lack of statistically significant differences in the amount of teachers effective feedback perceived between girls and boys in vocational courses, was related to the fact that in our sample, concerning vocational courses, the boys were three times more than the girls, which wasn't the case in the academic program. Nonetheless, meta-analysis synthesis gives support for the gender similarity hypothesis concerning students' contributions for school achievement (Hattie, 2003). In sum, gender differences found were only among academic program students, regarding teacher effective feedback perceived, with an effect size that might be considered small (Cohen, 1988). We should however be aware that the practical significance of any effect should only be established after considering the context and after comparison with other effects obtained in that same context (Conboy, 2003). Only by comparing the results in this study with other studies results, can we make some assumption about the practical implications of the effects observed. Therefore, future research should continue to explore how learners' individual and situational characteristics may relate or affect their feedback perceptions, as well as how these feedback perceptions relate to learning.

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